



Please type a plus sign (+) inside this box → ☐

HB/SB/21 based on PTO/SB/21 (08-00)

\$3611

## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/824,980
Filing Date	April 3, 2001
First Named Inventor	Donald J. Williams et al
Group Art Unit	3611
Examiner Name	Daniel G. DePumpo
Attorney Docket Number	3174-000008

Total Number of Pages in This Submission

RECEIVED  
DEC 06 2002  
GROUP 3600

### ENCLOSURES (check all that apply)

- ☒ Fee Transmittal Form
  - ☒ Fee Attached
- ☐ Amendment / Response
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Assignment Papers (for an Application)
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) \_\_\_\_\_

- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below):  
**PTO Form 1449 with 79 cited references; and Return Postcard.**

Remarks

The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name	Michael D. Wiggins	Reg. No.	34,754
Signature					
Date	11/25/02				

### CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below.

Typed or printed name	Stephanie Provost		
Signature		Date	11-25-02



# FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180

## Complete if Known

Application Number 09/824,980  
Filing Date April 3, 2001  
First Named Inventor Williams et al.  
Examiner Name Daniel G. DePumpo  
Group / Art Unit 3611  
Attorney Docket No. 3174-000008

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DEC 06 2002  
GROUP 3600

## METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money ☐ Other ☐ None  
Order

☐ Deposit Account:

Deposit  
Account  
Number 08-0750

Deposit  
Account  
Name Harness, Dickey & Pierce, P.L.C.

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge any additional fee(s) during the pendency of this application  
☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	740	2001	370	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	510	2003	255	Plant filing fee	
1004	740	2004	370	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1)

(\$ 0)

### 2. EXTRA CLAIM FEES

Total Claims  -20 \*\* =  0 X  =  0  
Independent Claims  -3 \*\* =  0 X  =  0  
Multiple Dependent  X  =  0

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$ 0)

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	400	2252	200	Extension for reply within second month	
1253	920	2253	460	Extension for reply within third month	
1254	1,440	2254	720	Extension for reply within fourth month	
1255	1,960	2255	980	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,280	2453	640	Petition to revive - unintentional	
1501	1,280	2501	640	Utility issue fee (or reissue)	
1502	460	2502	230	Design issue fee	
1503	620	2503	310	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	180
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	740	2809	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	740	2810	370	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	740	2801	370	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$ 180)

## SUBMITTED BY

## Complete (if applicable)

Name (Print/Type) Michael D. Wiggins Registration No. Attorney/Agent 34,754 Telephone (248) 641-1600  
Signature *Michael D. Wiggins* Date 11/25/02

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*Mark*  
12/10/02  
**PATENT**

**RECEIVED** #9  
DEC 06 2002  
**GROUP 3600**

Application No.: 09/824,980  
Filing Date: April 3, 2001  
Applicant: Donald J. Williams et al.  
Group Art Unit: 3611  
Examiner: Daniel G. DePumpo  
Title: ELECTRIC POWER STEERING SYSTEM INCLUDING  
A SEGMENTED STATOR SWITCHED RELUCTANCE  
MOTOR  
Attorney Docket: 3174-000008

Hon. Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. **LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION**

The patents, publications and other information submitted for consideration by the Office (except unpublished U.S. patent applications) are listed on Form 1449, attached hereto.

II. **COPIES**

A. X Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B.      Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. \_\_\_\_ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form-1449 for consideration by the Examiner and for listing on any patent resulting from this application. Since the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. X Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. \_\_\_\_ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. \_\_\_\_ See the attached foreign patent office communication from a counterpart foreign application:
2. \_\_\_\_ English translations are provided for:
3. \_\_\_\_ Other:

C. X The following additional information is provided for the Examiner's consideration.

T.J.E. Miller, "Switched Reluctance Motors and Their Control", is being cited in its entirety in the interest of completeness. The introduction and pages 4-7 are relevant to the issue of simplicity of design of convention SR machines, in contrast to the inventive segmented stator SR machine.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. \_\_\_\_ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Art Unit

V. THIS IDS IS BEING FILED UNDER

A. \_\_\_\_ 37 C.F.R. § 1.97(b): (check only one box)

1. \_\_\_\_ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. \_\_\_\_ within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. \_\_\_\_ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. \_\_\_\_ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. \_\_\_\_ 37 C.F.R. § 1.97(c): (check only one box)

- before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. \_\_\_\_ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. \_\_\_\_ See the certification below. No fee is required.

C. X 37 C.F.R. § 1.97(d):

- after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. \_\_\_\_ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. \_\_\_\_ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B.        no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C.        Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 CFR 1.704(d)

The undersigned hereby states that:

       each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A.   X   A check in the amount of \$180.00 is enclosed for the above-identified fee.

B.        Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

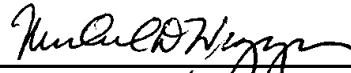
The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated: 11/25/02

By:   
Michael D. Wiggins  
Reg. No. 34,754

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600



4 of #9

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GROUP 3600

PATENT FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 1 of 4

ATTORNEY DOCKET NO.

SERIAL NO.

3174-000008

09/824,980

APPLICANT

Williams et al.

FILING DATE

GROUP

April 3, 2001

3611

**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		2002/0089251A1	07/11/2002	Tajima et al.		
2.		2001/0030517 A1	10/18/2001	Batzel		
3.		2001/0010452 A1	08/02/2001	Moriarty		
4.		3,604,222	09/14/1971	Sandkrug et al.		
5.		4,130,770	12/19/1978	Wrobel		
6.		4,340,829	07/20/1982	McCoy		
7.		4,698,542	10/06/1987	Muller		
8.		4,772,839	09/20/1988	MacMinn et al.		
9.		4,883,982	11/28/1989	Forbes et al.		
10.		4,950,932	08/21/1990	Harms et al.		
11.		4,959,596	09/25/1990	MacMinn et al.		
12.		5,173,650	12/22/1992	Hedlund		
13.		5,327,053	07/05/1994	Mann et al.		
14.		5,467,025	11/14/1995	Ray		
15.		5,583,387	12/10/1996	Takeuchi et al.		
16.		5,743,721	04/28/1998	Graham et al.		
17.		5,786,651	07/28/1998	Suzuki		
18.		5,806,169	09/15/1998	Trago et al.		
19.		5,811,905	09/22/1998	Tang		
20.		5,821,661	10/13/1998	Wissmach et al.		
21.		5,877,568	03/02/1999	Maes et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.





FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 2 of 4

ATTORNEY DOCKET NO.

3174-000008

SERIAL NO.

09/824,980

APPLICANT

Williams et al.

FILING DATE

April 3, 2001

GROUP

361

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**GROUP 3600****U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
22.		6,041,625	03/28/2000	Nagai et al.		
23.		6,104,113	08/15/2000	Beifus		
24.		6,194,805	02/27/2001	Heese et al.		
25.		6,194,806	02/27/2001	Suzuki et al.		
26.		6,219,900	04/24/2001	Suzuki		
27.		6,359,412	03/19/2002	Heglund		
28.		6,369,481	04/09/2002	Bahn		
29.		6,369,687	04/09/2002	Akita et al.		

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		EP0868010A1	30-09-98	Europe		X	
2.		EP0823771A1	11-02-98	Europe		X	
3.		EP0871282A1	14-10-98	Europe		X	
4.		EP0778660A3	30-09-98	Europe		X	
5.		EP0967135A2	29-12-99	Europe		X	
6.		FR2719324	03-11-95	France		X	
7.		EP0350429	10-01-90	Europe		X	
8.		11-341717	10-12-99	Japan		X	
9.		11-332138	30-11-99	Japan		X	

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 3 of 4

ATTORNEY DOCKET NO.	SERIAL NO.
3174-000008	09/824,980
APPLICANT	
Williams et al.	
FILING DATE	GROUP
April 3, 2001	3611

**RECEIVED**  
DEC 06 2002  
**GROUP 3600**

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation	
						Yes	No
10.		2000-333388	30-11-00	Japan		X	
11.		09-322439	12-12-97	Japan		X	
12.		2000-312451	07-11-00	Japan		X	
13.		11-289728	19-10-99	Japan		X	
14.		11-289727	19-10-99	Japan		X	
15.		11-289726	19-10-99	Japan		X	
16.		11-289701	19-10-99	Japan		X	
17.		11-275830	08-10-99	Japan		X	
18.		10-271718	09-10-98	Japan		X	
19.		09-233742	05-09-97	Japan		X	
20.		2000-224790	11-08-00	Japan		X	
21.		10-210721	07-08-98	Japan		X	
22.		11-191987	13-07-99	Japan		X	
23.		10-174319	26-06-98	Japan		X	
24.		2000-139052	16-05-00	Japan		X	
25.		11-089129	30-03-99	Japan		X	
26.		05-038086	12-02-93	Japan		X	
27.		2000-37050	02-02-00	Japan		X	
28.		08-033292	02-02-96	Japan		X	
29.		11-018331	22-01-99	Japan		X	

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 4 of 4

ATTORNEY DOCKET NO.

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3174-000008

09/824,980

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Williams et al.

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**GROUP 3600**

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
30.		2000-014057	14-01-00	Japan		X	
31.		2001-008395	12-01-01	Japan		X	
32.		WO 00/79670A1	28-12-00	WIPO		X	
33.		WO 00/37731	29-06-00	WIPO		X	
34.		GB 1200279	29-07-70	Great Britain		X	
35.		09084282	28-03-97	Japan		X	
36.		61030938	13-02-86	Japan		X	

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
1.		G. Gallegos-Lopez, P.C. Kjaer, T.J.E. Miller, "A New Rotor Position Estimation Method For Switched Reluctance Motors Using PWM Voltage Control", in Proc EPE'97, 7th European Conf. on Power Electronics and Applications 8-10 Sept. 1997 Trondheim Norway Vol. 3 pp. 580-585.
2.		Stephenson/Blake, "The Characteristics, Design and Applications of Switched Reluctance Motors and Drives", presented at the PCIM '93 Conference and Exhibition at Nuremberg, Germany, June 21-24, 1993.
3.		T.J.E. Miller, "Switched Reluctance Motors and Their Control", Magna Physics Publishing and Clarendon Press Oxford 1993.
4.		WF Ray and IH Al-Bahadly, "Sensorless Methods for Determining the Rotor Position of Switched Reluctance Motors", published in the Proceedings of the European Power Electronics Conference, Brighton UK 13-16 Sept. 1993 Vol. 6, pp. 7-13.

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.